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The role of parental depression and competitive coparenting on the development of insecure attachment and early-childhood depression

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Abstract

The role of parental depression and competitive coparenting on the development of insecure attachment and early-childhood depression

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Depression affects approximately 1-3% of children (Angold & Costello, 2001). Depressed children often have social problems, a higher risk for judicial problems, more negative life-events, and somatic symptoms (Birmaher et al., 2007). Although a great deal of research has focused on the mother's role in predicting their child's depression, there exists a dearth of research examining the father's role in predicting child depression. This proposed research study aims to elucidate the link between parental depression and competitive coparenting behaviors as predictors for early childhood insecure attachment and early childhood depression. First, mother and father depressive ratings will be assessed before the child is born (prenatal). At 12/15 months, the Strange Situation will be administered to assess the child's attachment pattern. At 24 months, the triadic interaction (mother, father, and child) will be assessed with a focus on individual and dyadic competitive coparenting behaviors. Finally, at age seven the child's depressive symptomatology will be reported by both parents. Hierarchical linear modeling (HLM) is proposed to be used for the analyses.

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Chapter 1

Introduction

The proposed study is concerned with the degree to which infant-parent attachment patterns, parental depression, competitive coparenting behaviors, and early childhood depression are interrelated. Grounded in attachment theory, the proposed model (see Figure 1) seeks to determine 1) the degree to which infant-parent attachment patterns are related to levels of competitive coparenting and 2) whether competitive coparenting mediates the relationship between insecure infant-parent attachment patterns and childhood depression at age 7.

Depression, characterized by chronic, mild to moderate feelings of sadness, irritability, and/or impaired functioning that lasts for at least one year in children, afflicts about 1-3% of school-aged children (American Psychiatric Association, 2013; Mash & Barkley, 2014). These prevalence rates are higher among older children, with gender differences appearing in adolescence. More specifically, the prevalence rate of depression among adolescent girls is approximately three times higher than that of adolescent boys (National Institute of Mental Health, 2016).

There is a myriad of poor outcomes associated with the onset of childhood depression. School-aged children suffering from childhood depression experience higher rates of negative peer status, achieve less academically and are more likely to act out (Ward, 1999). Further, if left untreated, children diagnosed with depression are more at risk of developing other chronic illnesses into adulthood, including comorbid mental

health disorders and health impairments (Bhatia and Bhatia, 2007). To better understand the sequelae of childhood depression, its etiology must be examined.

The etiology of childhood depression has been studied extensively, with both genetic and environmental factors being identified as risk factors. Genetic studies estimate the heritability of depression to be approximately 40% in nonclinical samples (Sullivan et al., 2000), and a double dose of parent and grandparent depression is strongly associated with depression in the child (Weissman et al., 2005), supporting that depression can be transmitted intergenerationally. Moreover, it is well-known that children whose mothers are depressed are at high risk of experiencing negative outcomes that adversely impact child functioning (Cummings, Davis, & Campbell, 2000),
In addition to the intergenerational transmission of depression, Brenning, Soenens, Braet, & Bosmans (2011) also found evidence for the intergenerational transmission of insecure attachment.

Attachment theory uses an evolutionary perspective centered on the biological bases of attachment behaviors to describe the underpinnings of the attachment relationship between infant and caregiver (Bowlby, 1969). Bowlby suggested that infants engage in attachment behaviors, including crying, yelling, and seeking proximity with their caregiver, to secure safety for themselves. Caregivers that respond with sensitivity to their infant's needs serve as a secure base from which the infant can explore (Ainsworth & Bell, 1978). Parents who fail to meet their infant's needs consistently are likely to rear children who become insecurely attached to them. Insecurely attached

infants have been found to demonstrate high levels of negative emotionality into toddlerhood (Kochanska, 2001), which has been associated with childhood depression.

While an individual parent's behaviors, such as their depressive symptoms, heightens the risk that their infant will develop depression later in life, the parents' dyadic behaviors, chiefly competitive coparenting, may also play a role. Competitive coparenting, which occurs when one (or both) partner(s) undermines and/or criticizes their partner's parenting in the presence of their child (Metz, Colonnesi, Majdandzic, & Bogels, 2018), has been associated with internalizing symptoms, including depressive symptoms, among school-aged children (Jones, Shaffer, Forehand, Brody, & Armistead, 2003). Further, competitive coparenting has also been linked to insecure attachment (Caldera & Lindsey, 2006), but, to date, no studies have examined the interrelatedness between infant insecure attachment, competitive coparenting, and childhood depression.

The purpose of the present study is to investigate if competitive coparenting mediates the relationship between insecure infant-parent attachment and childhood depression. Previous studies have examined the relationship between insecure attachment and competitive coparenting as well as the relationship between competitive coparenting and children's depressive symptoms, but no study has examined these variables all within the same model. The proposed study will use data from the Austin Longitudinal Project, which examined 125 couples and their transition to first-time parenthood. Results from this study will be used to improve our understanding of family-level processes that contribute to child outcomes, and this will help inform child and family interventions.

Chapter 2

Review of the Literature

Depression

Symptomatology

The DSM-V is the most commonly used diagnostic tool for clinicians to diagnose major depressive disorder (MDD) in children, adolescents, and adults. MDD is defined as a chronic, mild to moderate depression typified by persistence that lasts at least 1 year in children and 2 years in adults (Mash & Barkley, 2014). According to the DSM-V, the core features of depressive disorders include sad, empty, or irritable mood; somatic and cognitive changes; and impairment in function (American Psychiatric Association, 2013). Children and adolescents may be diagnosed with MDD if they show five or more of the following symptoms for at least two weeks: depressed mood most of the day, most days; loss of interest and/or pleasure in activities; significant weight loss or gain; insomnia or hypersomnia; psychomotor agitation; fatigue; feelings of worthlessness or excessive and inappropriate guilt; diminished concentration or indecisiveness; or recurrent thoughts of death, suicidal ideation, or suicide attempt or plan.

Supporting the DSM-V criteria for MDD, independent investigators have identified similar symptomatologies among depressed youth over the past few decades to assist with an early diagnosis. For example, a longitudinal study on 232 nine-year-old children found that depressed children were more likely to illustrate symptoms of sadness, sleep disturbance, appetite/weight changes, low self-esteem/guilt, and concentration problems, whereas suicidal ideation was least prevalent (Keenan et al.,

2008). Other research suggests that young children are more likely to reveal their depression through their outward appearance and through somatic complaints (Carlson & Kashani, 1988; Ryan et al., 1987), which can include stomachaches, nausea, headaches, and tingling sensations or numbness. In addition, an inability to gain developmentally appropriate weight is also associated with childhood depression (Merrell, 2001). Altogether, these findings provide empirical support for the diagnostic criteria outlined in the DSM-V. Nevertheless, diagnosing MDD in children is exceedingly difficult as especially young children struggle to vocalize and express their feelings. In addition, clinicians may search for adult-style manifestations of depression, thereby overlooking how depression may manifest in the child's context. Finally, some may not simply want to consider the possibility that a young child may be depressed. However, there is growing evidence that suggests children as young as four years of age can exhibit depressive-like symptoms.

Although the typical age of onset for depression is middle to late adolescence, with the mean onset at around 14 years (Mash & Barkley, 2014), children, as young as four years old, can be clinically depressed. Recent advances in technology have enabled researchers to use imaging techniques in order to elucidate brain differences between clinically depressed children and healthy controls. A recent study using fMRI revealed that depressed children, as young as four years old, already have disrupted amygdala activity, compared with non-depressed youth, suggesting impaired emotional regulation functioning at this early age (Gaffrey, Barch, Singer, Shenoy, & Luby, 2013). Furthermore, these researchers found that amygdala reactivity was inversely related to the

severity of depression, and those with greater amygdala disruption produced higher levels of cortisol, a hormone chiefly associated with stress response. Consequently, these depressed preschoolers exhibited impaired and dysregulated emotional functioning in the classroom setting, which tended to manifest as irritability. Therefore, this provides further empirical support for the inclusion of irritable mood as a core feature of depression, particularly among especially young children, which can serve to help with the early identification of MDD in young children.

Children with MDD may exhibit all or some of the aforementioned symptoms, with varying degrees of severity; however, there is not only heterogeneity in the presentation of depressive symptoms among youth, but there is also heterogeneity among those afflicted. Depression appears to impact individuals from all walks of life, regardless of race, ethnicity, gender, or socioeconomic status (Gerali, 2009), which underscores how rife MDD is throughout society. Nevertheless, it should be noted that higher rates of MDD are associated more frequently among members of minority groups compared with Whites in the United States (Dunlop, Lyons, Manheim, & Chang, 2003; Kennard, Mahtani, Hughes, Patel, & Emslie, 2006), and there are significant differences in prevalence rates as well as gender differences.

Prevalence Rates

Approximately 1% of preschool-aged children (i.e., younger than 5 years) already display signs and symptoms of depression (Vannest et al., 2008), and, among school-aged children (ages 5-12), prevalence rates for depression range from 1-3% (Mash & Barkley, 2014; Angold & Costello, 2001). Among adolescents (ages 13-18), prevalence rates

range from 2-13% (Mash & Barkley, 2014). Moreover, according to the National Institute of Mental Health (NIMH), an estimated 2.6 million adolescents in the United States suffered from at least one major depressive episode in 2013 alone (NIMH, 2014). In 2017, this figure rose to 3.2 million adolescents; in addition, 2.3 million adolescents were estimated to have had at least one major depressive episode with severe impairment (NIMH, 2017). Severe impairment was measured by the Sheehan Disability Scale (SDS). The SDS uses a visual analog scale with scores ranging from 0 (no impairment) to 10 (very severe), and the SDS assesses the following domains: 1) chores at home, 2) school or work, 3) close relationships with family, and 4) social life. Ratings of 7 or higher indicate severe impairment. Taken together, these statistics reveal that approximately 2.3 million adolescents experience clinically significant levels of impairment either at home, through school or work, and/or in their interpersonal and familial relationships. Finally, global rates of depression appear to be increasing, with the World Health Organization (WHO) reporting that depression and suicide rates among adolescents have risen in ninety of its member countries (Gerali, 2009). Furthermore, the WHO ranks depression as the number one leading cause of disability worldwide (Friedrich, 2017).

Gender Differences

There are mixed results regarding gender differences with respect to the expression or presenting symptoms, of MDD. Some studies have found that depressed girls are more likely to report feelings of excessive guilt and increased appetite, whereas depressed boys were more likely to report higher levels of anhedonia, depressed mood in the morning, and morning fatigue (Bennett et al., 2005). In addition, Sloan and Kornstein

(2003) found that girls were more likely to cry and display greater affective lability as principal symptoms, whereas boys are more likely to display aggression and agitation as major symptoms (Fanti and Henrich, 2010). Similarly, a more recent study found clear gender differences between girls and boys, with girls showing more internalizing symptoms and boys showing more externalizing symptoms, which supports earlier findings (Baptista, Borges, & Serpa, 2017). However, it is important to note that this study examined depressed youth aged 8-17 years in Brazil, so cultural influences and factors must be taken into consideration before interpreting results and generalizing them to the US population. In contrast to the aforementioned findings, some researchers have found no sex differences in symptoms of depression among children (Kovacs, 2001; Thapar, 2012), suggesting that multiple variables, such as socioeconomic status, cultural background, the presence or lack of protective factors, and risk factors, can attenuate or exacerbate the effect of gender.

In addition to gender differences in the symptomatology of MDD, there is also a clear difference in prevalence rates that emerge as children enter adolescence. Although prevalence rates of MDD are equivalent in school-aged children, prevalence rates begin to differentiate among adolescents, where girls' rates for depression approach nearly twice the rates for boys (Mash & Barkley, 2014). In 2016, the National Institute of Mental Health (NIMH) found the past year prevalence of a major depressive episode to be 19.4% among adolescent females compared with 6.4% among adolescent males. This marked difference in prevalence rates has led psychologists to investigate the basis for these differences.

Researchers and scholars have formulated several theories to account for gender differences, including theories that have focused on hormonal changes, stress and coping processes, changing social roles, as well as interactions between these factors (Ruderman, Stifel, O'Malley, & Jimerson, 2013). Some researchers contend that gender differences in MDD may be due to puberty-linked gonadal hormones and brain neurotransmitters that affect girls' responses to stressful life events, which are strong risk factors for depression in both genders (Mash & Barkley, 2014; Young & Korszun, 2010). Additional hypotheses highlight the socialization experiences that girls endure early in age (e.g., ages 10-13), which boys do not. Furthermore, girls are more likely to be sexually abused at an early age than boys; specifically, one in nine girls under the age of 18 will be sexually abused or assaulted by an adult compared with one in fifty-three boys (Rape, Abuse, and Incest National Network, 2016), which places girls at an increased risk for developing depression as well as other mental and possibly physical disorders. The presence of these risk factors helps elucidate the marked disparity in prevalence rates among adolescent girls and boys. Nevertheless, among those afflicted with MDD, there appear to be clear negative consequences and symptoms that appear in childhood and may persist into adolescence and through adulthood.

Childhood Depression and Related Outcomes

Childhood depression does not only afflict children with feelings of depressed and/or irritable mood, but it can also lead to a plethora of ancillary consequences related to the child's overall functioning. For example, childhood depression is most commonly associated with impaired academic and social functioning (Birmaher et al., 1996; Sihvola

et al., 2007). Among school-aged children, childhood depression has been associated with negative peer status, poor schoolwork, reduced achievement, and acting out (Ward, 1999). Although depression affects a relatively small proportion of young children, if left untreated, childhood depression can persist into adolescence and thereafter. Children who suffer from a major depressive episode are at a much greater risk to relapse later in life, to experience poor functioning as adults, and to develop additional comorbid internalizing disorders compared with children with no instance of a major depressive episode (Copeland, Goldston, & Costello, 2017). Moreover, a high degree of adolescents who experience depression will also be diagnosed with another mental disorder (commonly a substance-use, anxiety, or behavioral disorder), as well as an increased likelihood of developing other chronic illnesses into adulthood (Bhatia and Bhatia, 2007). Individuals with a chronic mental illness have a greater likelihood of developing depressive symptoms and experiencing more severe symptoms (both depressive symptoms and other chronic symptoms; Wang & Gorenstein, 2013). Consequently, individuals with chronic mental illnesses are more vulnerable to suicidality, and suicides are the second leading cause of death for children and young adults between the ages of 10 and 24 years, with accidents, or unintentional injuries, being the leading cause (Heron, 2016). Given the sequelae that follow the onset of depressive disorders, early identification, diagnosis, and treatment are imperative for young children who may be at risk for depression. However, if left untreated, then depression may exacerbate over time, leading to potentially more severe symptoms and additional psychopathology into adolescence and through adulthood.

Untreated childhood depression may worsen over time, developing into more severe psychopathology that can significantly reduce the child's quality of life and overall well-being. For example, Cohen et al. (2018) recently found childhood depression to significantly predict adolescent depression via a homotypic pathway, meaning that depressive symptoms at an early age predict more depressive symptoms at a later age. In addition, a prospective study on 1,420 children (ages 9-13) found childhood depression to be strongly associated with suicidal ideation and behaviors, although not all children who exhibited suicidal ideation and behaviors met DSM-IV criteria for MDD (Copeland, Goldston, & Costello, 2017). Of note, children who reported only suicidal ideation did not achieve better outcomes than children who reported suicidal ideation with a suicidal attempt, suggesting that the mere experience of suicidal ideation may be as detrimental as an actual suicidal attempt. Moreover, childhood suicidal ideation alone predicted suicidal ideation and behaviors in adulthood, but only among children who met the criteria for a diagnosis of MDD. Finally, the same study also revealed that individuals with any history of childhood suicidal ideation or behaviors had poorer overall functioning, including impaired social functioning, diminished health, an increase in risky behaviors, and lower financial/education status in adulthood. In summary, early onset of depressive symptoms, especially suicidal ideation, predisposes a child to experience a host of psychiatric, social, and/or physical issues as they age. Furthermore, if a child is experiencing a comorbid mental disorder, then these negative effects can be greatly exacerbated.

Etiology of Childhood Depression

Family Risk and Genetic Predisposition

Several psychological theories have been formulated to explain the development and maintenance of depression from childhood and through adulthood. Chief among these theories is the diathesis-stress model, which highlights the interaction between an individual's predispositional vulnerability (e.g., genetic, environmental factors) as well as stress caused by life experiences in predicting a disorder. For example, a child with a family history of depression who experiences a particular stressor, such as living in a chronically violent, unsafe neighborhood, would be more likely to develop depression than a child with a family history of depression who is living in a relatively safe and stable neighborhood. Several studies have provided support for this theory. For example, children reared by clinically depressed parents are nearly four times as likely to experience a major depressive episode than children reared by normal controls and are two times as likely to experience depression than children of parents with other psychiatric or medical conditions (Essau, 2008; Rice, Harold, & Thapar, 2002), and this elevated risk increases with age (Weissman, Friedrich, Warner, & Wickramaratne, 1992; Weissman, Warner, Wickramaratne, Moreau, & Olfson, 1997). In addition, a heavy familial loading for depression (e.g., a double dose of parent and grandparent depression) and the presence of a mood disorder between both parents are associated with even greater risk of depression in offspring (Merikangas, Prusoff, & Weissman, 1988; Weissman et al., 2005). Altogether, these findings suggest that children reared in families with a history of depression are at a significantly greater risk of developing depression

themselves, which is the result of the environment that the at-risk child is raised in and chronically exposed to.

In addition to environmental factors, the diathesis-stress model also highlights the role that genetics play in the manifestation of MDD in children. Twin and family studies reveal that there is a moderate to a substantial risk of heritability of adolescent depression, with a twin study estimating the heritability of MDD to be around 40% in the general population (Sullivan et al., 2000). Furthermore, a meta-analysis of existing studies indicates that genetic influences account for 44% of the variance in MDD symptoms in samples of children and adolescents (Burt, 2009). Interestingly, the degree of heritability is not consistent across genders; three large-scale twin studies found that heritability estimates tend to be greater among women than men (Bierut et al., 1999; Kendler, Gardner Neale, & Prescott, 2001; Kendler, Gatz, Gardner, & Pedersen, 2006), and this may contribute to the higher prevalence rate of depression among females compared with males. Furthermore, a multigenerational (four generations) study of family members at high risk for MDD found that heritability estimates of early-onset (<13 years old) of MDD to be as high as 62%, while the heritability of late-onset of MDD was 46% (Guffanti et al., 2016). Taken together, the results from these studies clearly illustrate a genetic pathway in the transmission of depression from parent to offspring.

Attachment Theory

Attachment theory, first proposed by John Bowlby (1969), provides an evolutionary perspective focused on the biological bases of attachment behaviors among

infants and children. The ultimate goal of the early attachment relationship is to promote the survival of the young. Towards this end, infants are predisposed to engage in attachment behaviors to increase their proximity to their attachment figure (e.g., mother, father, and/or guardian) when ill, hurt, or tired. Such behaviors function to draw the attachment figure near, heightening the likelihood of protection and survival of the child. Following Bowlby's work, four patterns of attachment have been identified including secure, avoidant, and resistant (Ainsworth et al., 1970), and disorganized (Main & Solomon, 1990). Securely attached children have been found to make up the majority of samples across multiple cultures, suggesting that secure attachment has a high degree of normativity across the world. For example, Ainsworth's first sample identified approximately 70% of infants as securely attached in the United States, Tomlinson, Cooper, & Murray (2005) identified 61.9% of infants as securely attached in South Africa, and Hu & Meng (1996) identified 68% of their Chinese sample as securely attached.

Infants develop secure attachment when their attachment figure is sensitive to their signals and responds appropriately to their needs (Ainsworth, 1970), which, according to Bowlby, leads the infant to become "likely to possess a representational model of attachment figure(s) as being available, responsive, and helpful" (Bowlby, 1980, p. 242). Consequently, empirical research has consistently found securely attached children to experience the best outcomes. For example, Sroufe et al. (2005) conducted a thirty-year longitudinal study on over 200 urban mothers who were identified as being at moderate risk for experiencing parenting difficulties due to challenges related to poverty.

Several key findings were identified, and a common theme persisted: on average, securely attached children were found to have more favorable outcomes than their insecure counterparts. For example, securely attached children were found to be more independent learners in the classroom setting compared with children with anxious histories, such as avoidant or resistant. Securely attached children were also found to exhibit more robust emotional regulation skills (e.g., they were flexible and able to bounce back after stress or difficulty), were rated as more self-confident, higher in self-esteem, and were more ego-resilient, which suggests that these children were more effective in adjusting their expression of feelings and impulses to fall in line with their situational requirements, such as playing excitedly during recess but remaining contained and attentive during classroom structured activities. Finally, securely attached children demonstrated closer, more frequently reciprocated friendships, and had notable leadership qualities from childhood and through adolescence. In contrast, insecurely attached children display social-behavioral deficits and relationship disturbances that are linked to depression, such as tending to seek less positive feedback than securely attached youth (Cassidy, Ziv, Mehta, & Feeney, 2003). Insecurely attached infants display increasing levels of negative emotionality into toddlerhood (Kochanska, 2001). These deficits appear to persist into adolescence, with insecurely attached adolescents reporting lower levels of interpersonal competence with peers, including less assertiveness (Kobak & Sceery, 1988) and more submissiveness (Irons & Gilbert, 2005) in social situations. Finally, insecurely attached youth are more likely to be targets of peer victimization (Troy & Sroufe, 1987). Altogether, the social-behavioral deficits that insecurely attached

children endure lead to them be more vulnerable and at risk for depression, and this heightened risk stems from the child's early experiences and interactions with their attachment figures.

Parental Depression

Although the bulk of depressive episodes in children follow a negative acute event or chronic stressor, parental depression may also predispose a child to develop depressive symptoms. About 50-70% of depressive episodes in children typically develop following a negative, acute event, such as the loss of a parent, domestic violence, or physical and sexual abuse (Rueter et al., 1999). The remaining 30-50% of cases involve more chronic stressors, such as family disharmony/discord and poverty (Goodyer et al., 2000). Family disharmony can be compounded when one or both parents are depressed. Depressed parents may inadvertently engage in negative parenting behaviors that could be labeled as emotional maltreatment, which has been found to be a predictor for depression and suicidal ideation in children (Miller et al., 2017). In addition, the adverse effects of maternal depression on child functioning are well-documented (Cummings, Davis, & Campbell, 2000), with maternal depression acting as a predictor for psychological and physical dysfunction in the child (Lim, Miller, & Wood, 2008). Furthermore, Lim and colleagues found that mothers with depression were more likely to engage in negative parenting, which involves intrusiveness, neglect/distancing from the child, and harsh discipline, and these negative parenting practices predict internalizing disorders, such as anxiety and depression, in children. In addition, children of depressed parents may be more likely to experience critical judgment and over-protectiveness due

to their parent's increase in negative perceptions of normal child behavior (Cohn et al., 1986; Richman, Chapman, & Bowen, 1995). Moreover, extant evidence suggests that the relationship between maternal depression and children's problems may be bidirectional, such that maternal depression affects children's symptoms while a child's symptoms may also affect maternal depression (Bagner et al., 2013; Nicholson et al., 2011). Similarly, in early adolescence, the effects of adolescent depression extend beyond the individual. Parents of depressed adolescents report lower parent mood and increased strain (Jaycox et al., 2009), resulting in impaired parent-child relationships and a hindered attachment relationship.

Parental depression has been associated with maladaptive parenting strategies and is related to insecure attachment representations in children and adolescents. Brenning, Soenens, Braet, & Bal (2012) examined the intergenerational similarity of internalizing symptoms among 129 adolescents and their mothers who were referred or non-referred participants. They found a significant association between mothers' and adolescents' internalizing symptoms ($\beta = .26$). Mothers with higher levels of internalizing symptoms were less likely to be responsive to their child or to support their child's autonomy. Similarly, these mothers were more likely to have children who were insecurely attached, which was likely the result of the mothers' maladaptive parenting strategies. These findings support earlier findings from a study that examined a slightly younger and larger sample of 303 children who ranged from ages 8 and 14 years (Brenning, Soenens, Braet, & Bosmans, 2011). In their study, evidence for the intergenerational transmission of depression was found in addition to evidence for the intergenerational transmission of

anxious attachment. However, results were less consistent for the intergenerational transmission of avoidant attachment. Another study examined the relationship between parental attachment, perceived family conflict, and adolescent depression. In families with high perceived family conflict, parental attachment was found to mediate the relationship between perceived family conflict and adolescent depression (Constantine, 2006). In summary, parental depression is strongly associated with childhood and adolescent depression, and early intervention on the depressed parents' coparenting behaviors is warranted to help mitigate the likelihood that their offspring will develop depressive symptoms or become insecurely attached.

Coparenting

The Dimensions of Coparenting

Coparenting is the collaboration between parents to achieve the same goal for the well-being of their child (Blandon, Scrimgeour, Stifter, & Buss, 2014). Coparenting is understood to be divided into two parts: cooperative coparenting (i.e., supporting and assisting in advancing each other's parenting efforts) and competitive coparenting (i.e., undermining and/or criticizing the partner's parenting; Metz, Colonnesi, Majdandzic, & Bogels, 2018). Past research has found cooperative coparenting, also known as supportive coparenting, to predict positive family outcomes, including fewer parent- and teacher-reported child internalizing and externalizing problems (Colonnesi et al., 2011; Moller, Nikolic, Majdandzic, & Bogels, 2016). In contrast, competitive coparenting is related to poor child outcomes. Competitive coparenting has been linked with aggression and internalizing symptoms among school-aged children (Jones, Shaffer, Forehand,

Brody, & Armistead, 2003), to symptoms of ADHD and ODD (Umemura, Christopher, Mann, Jacobvitz, & Hazen, 2015), and later adolescent risk behavior and antisocial behavior (Feinberg, Kan, Hetherington, 2007). In short, cooperative coparenting appears to protect against poor psychological outcomes among children, whereas competitive coparenting appears to place children at greater risk for developing psychopathology.

Cooperative versus Competitive Coparenting: Which is a Stronger Predictor for Child Outcomes?

Despite the plethora of research that indicates that cooperative coparenting reduces the likelihood of psychopathology and competitive coparenting increases vulnerability, it is less clear whether cooperative coparenting or competitive coparenting is a stronger predictor of psychopathology. For example, competitive coparenting commonly co-occurs with a lack of cooperative coparenting behaviors, and this makes it increasingly difficult to know which plays a stronger role in predicting child outcomes. To elucidate how each factor contributes to child outcomes, Murphy, Jacobvitz, and Hazen (2016) investigated whether competitive coparenting could independently predict children's externalizing symptoms. Using the same dataset as the present study, Murphy et al. found aspects of competitive coparenting, chiefly triangulating children during parental conflict, to be a more powerful predictor of children's externalizing symptoms than low cooperative coparenting, negative emotionality, or conflict between spouses. Triangulation, as defined by Murphy et al., occurs when the child is forced to obey or align with only one parent. Consequently, the child is forced into a precarious situation in which they are at the center of the family conflict. In order to mitigate the parents'

conflict, the child will attempt to regulate the tension between the parents, often at the expense of their development (Fivaz-Depeursinge & Favez, 2006).

Most of the studies on links between coparenting and child outcomes have focused on children who develop externalizing disorders. Less is known about the effects of competitive coparenting or how difficulties cooperating in caring for the child affect internalizing symptoms such as depression and anxiety. There are a few studies, however, that have examined this link. Metz et al. (2018) examined the role that cooperative coparenting and competitive coparenting play in predicting child anxiety and found that low cooperative coparenting did not predict later child anxiety. However, their sample had a low incidence of competitive behaviors (0.89% of the time across all interactions), which prevented them from including measures of competitive coparenting in their multivariate analyses. As a result, they were unable to determine the extent to which competitive coparenting predicts later child anxiety. Umemura, Christopher, Mann, Jacobvitz, & Hazen (2015) used the same dataset as the present study and found competitive coparenting to uniquely predict children's ADHD and ODD symptoms independent of cooperative parenting (using scores combined from the TRF and the CBCL). Moreover, cooperative coparenting did not predict ADHD, ODD, affective problems, or somatic complaints. In addition, competitive coparenting was not significantly related to either mother-rated or teacher-rated affective problems or somatic complaints. A limitation of their study is that they included only mother and teacher ratings from the TRF and CBCL and did not include father ratings of child psychological problems. Schroeder, Hood, & Hughes (2010) examined the correspondence between

mother and father rating of childhood behavior problems on the CBCL in a sample of 174 children ranging from ages 5 through 18 years and found that correspondence was high for externalizing disorders (*r = .74)* but significantly lower for internalizing disorders (*r = .52*). Similarly, Alakortes et al. (2017) replicated these findings in a sample of 208 toddlers and also found that mothers tend to report higher scores of severity across all three broadband scales for both boys and girls. These findings suggest that including reports from both parents is the best way to comprehensively assess child psychological problems.

Competitive Coparenting and Attachment

Competitive coparenting and insecure attachment may be related. As previously described, infants develop secure attachment when their attachment figure is sensitive to their signals and responds appropriately to their needs (Ainsworth, 1970). Moreover, children rely nearly exclusively on their parents as sources of protection and safety (Umemura et al., 2015). When parents engage in competitive coparenting they also actively triangulate their child by either working to gain the role as the "favorite" or by trying to form an alliance with the child against the other parent (Murphy et al., 2016). Competitive coparenting, therefore, may lead children to view their parents as sources of distress and insecurity, i.e. insecure attachment, which can inhibit the likelihood that children use their parents as sources of emotional security, i.e. secure attachment. In addition, competitive coparenting is associated with declines in marital quality (Christopher, Umemura, Mann, Jacobvitz, & Hazen, 2015), and marital quality has been

linked to caregiver sensitivity (Feeney, 1996), which, in turn, predicts infant attachment security (Ainsworth, 1970; Stevens et al., 2018).

Despite the intuitive connection between insecure attachment and competitive coparenting, only two studies to date have explored this relationship (Caldera & Lindsey, 2006; Pudasainee-Kapri & Razza, 2015). Both studies found coparenting to be associated with attachment security; however, only Caldera & Lindsay assessed multiple dimensions of coparenting behaviors (i.e., cooperative and competitive coparenting behaviors). Caldera & Lindsey found that mothers from cooperative coparenting dyads to be more responsive to their infants during dyadic play, and mothers who were more responsive and less restrictive during dyadic play also identified their infant as being more securely attached to them. On the other hand, they found competitive coparenting to be associated with an infant's secure attachment to one parent but not the other. In other words, the child was securely attached to one parent and insecurely attached to the other. This may be the result of triangulation, which is a core aspect of competitive coparenting. Specifically, because the child is forced to side with one parent, this may promote the child to become securely attached to that parent while viewing the other parent as a source of conflict or distrust, leading the child to become insecurely attached to that parent. In a more recent study, Pudasainee-Kapri & Razza (2015) found cooperative/supportive coparenting to be associated with higher levels of father engagement and more mother-child secure attachment relationships for both white and minority families. However, caution is warranted when interpreting results from these studies. In both studies attachment was assessed using the attachment Q-sort (AQS), a

self-report assessment completed by parents, which may not be an objective assessment of child attachment quality. When using the Q-sort, parents are asked to rate the quality of attachment between themselves and their infant, which may lead parents to respond in a socially desirable way. This is particularly concerning because van Ijzendoorn et al. (2004) found mothers to provide less reliable assessments of attachment behavior compared with trained researchers when using the AQS. In addition, Caldera & Lindsey only assessed competitive coparenting behaviors, which prevented them from analyzing the unique contribution that each parent's competitive coparenting behaviors may provide. Despite these limitations, this study and Pudasainee-Kapri & Razza's study suggest that coparenting is closely linked to child attachment security.

Chapter 2

The Proposed Study

A great deal of research has focused on the mother's role in predicting socio-emotional outcomes in children. Research has illustrated a genetic link between maternal depression and subsequent child depression (Nurnberger, Goldin, & Gershon, 1986). In addition, research also strongly suggests that the intergenerational transmission of both depression and insecure attachment occurs between mother and child (Brenning, Soenens, Braet, & Bal 2012), and it is suggested that this transmission occurs through social learning of the mother's maladaptive or negative cognitions, behaviors, and affect. Although several studies have focused on the mother's role in predicting childhood depression, there exists a dearth of research examining the father's role in predicting child depression and insecure attachment. Furthermore, competitive coparenting, a maladaptive form of parenting, has been associated with adverse child outcomes (Murphy et al., 2016; Umemura et al., 2015). However, it remains unclear if competitive coparenting mediates the relationship between insecure attachment and later child internalizing problems.

The present study aims to elucidate the link between parental depression and competitive coparenting behaviors as predictors for child insecure attachment and depression. First, mother and father depressive ratings will be assessed before the child is born (prenatal). At 12 and 15 months, the Strange Situation will be administered to assess the child's attachment pattern. At 24 months, the triadic interaction (mother, father, and

child) will be assessed with a focus on competitive coparenting behaviors. Finally, at age seven the child's depressive symptomatology will be reported by both parents.

Research Questions and Hypotheses

1. To what extent does parental depression predict competitive coparenting behaviors?

   Hypothesis 1: Parents who experience depression are more likely to engage in maladaptive parenting strategies (Brenning, Soenens, Braet, & Bal, 2012). Therefore, it is likely that depressed parents may also be more likely to engage in competitive coparenting behaviors, which is a maladaptive form of coparenting.

2. To what extent is insecure attachment related to competitive coparenting behaviors?

   Hypothesis 2: Caldera & Lindsey (2006) found competitive coparenting behaviors to predict insecure attachment. Their study used the AQS, a self-report measure, to assess attachment. The present study will use an objective measure, the Strange Situation. Consequently, a significant relationship between competitive coparenting and insecure attachment will likely be found.

3. Does competitive coparenting mediate the relationship between insecure attachment and childhood depression?

   Hypothesis 3: Several studies have established a relationship between insecure attachment and childhood depression (Brenning, Soenens, Braet, & Bal, 2012; Cassidy, Ziv, Mehta, & Feeney, 2003). However, to date, none have examined if competitive coparenting mediates this relationship. Given that competitive

coparenting has been separately linked to insecure attachment and child internalizing problems, competitive coparenting is expected to be found as a mediator between insecure attachment and child internalizing problems.

4. Does competitive coparenting mediate the relationship between insecure attachment and childhood depression even after controlling for parental depression?

   Hypothesis 4: Competitive coparenting is expected to continue to mediate the relationship between insecure attachment and child internalizing problems even after controlling for parental depression. However, the strength of that relationship is expected to be influenced by parental depression such that families with high parental depression will be more likely to engage in competitive coparenting. Families with low parental depression may still engage in competitive coparenting but to a milder degree.

Participants

The present study will use data from the Austin Longitudinal Project, which followed 125 couples and focused on the transition to first-time parenthood and its effects on children's later developmental outcomes. Participants were recruited during pregnancy through childbirth classes, public service radio announcements, and flyers distributed at local maternity stores and obstetricians' offices in a large southwestern US city. Parents provided demographic information before childbirth. To be eligible for the study, all parents were either married or living together at the start of the study, were first-time parents, and spoke English fluently. The median family income was $30,000-45,000 and

the mean age of participants was 29.4 years, ranging in age from 18 to 43 years. Participants were primarily Caucasian (85%) but also included 8% Hispanic, 3% African American, and 4% indicating "other" or biracial heritage. All infants (41% female) were born full-term and none were admitted to the Neonatal Intensive Care Unit (insert citation). Following each phase of data collection, families received compensation in the form of savings bonds, newsletters, gifts for their newborn, and a copy of videotaped interactions.

Data were collected prenatal and when the children were 8 and 24 months and 7 years. Attrition across data collection were 125 couples at prenatal visit, 121 families at 8-month visit, 108 families at 24 months, and 85 families at age 7 (Murphy, Boyd-Soisson, Jacobvitz, Hazen, 2015; Umemura, Jacobvitz, Messina, and Hazen, 2013;). Couples left the study due to moving away, being too busy to participate, or losing contact with the researchers. At 24 months, 12 couples had divorced, resulting in 96 triadic interactions to be coded. With respect to demographic differences, Murphy, Boyd-Soisson, Jacobvitz, & Hazen (2017) examined the same sample as in the present study and, across all demographic variables, found that couples who left the study only statistically differed from those who remained in the study in terms of income level, with couples who reported an annual income of less than $30,000 being less likely than those who reported an annual income of $45,000 -- $60,000 to remain in the study at 7 years.

Procedure

Data were collected in five waves: the first wave took place about 1 month prenatally in a laboratory at the University of Texas at Austin, the second wave took

place when the child was 8 months old, the third wave at 12 and 15 months old, the fourth wave at 24 months old, and the fifth wave at 7 years old. The first visit took place at a University laboratory and mothers and fathers independently completed a series of measures, including a self-report of depressive symptoms. At either 12 or 15 months, the mother or father accompanied their infant and went to a laboratory at the university to participate in the Strange Situation procedure. Mother and father order was counterbalanced. When children were 24 months old, families (i.e., mother, father, and child) were videotaped in a 25-min at-home family interaction task. This task assessed individual and dyadic co-parenting behaviors. When children reached 7 years of age, each of their parents was given a questionnaire to assess the child's internalizing symptoms.

Measures

Attachment security with mother and father

The Strange Situation procedure was used to assess mother-infant attachment security following the standard procedures specified by Ainsworth (Ainsworth et al., 1978). The Strange Situation procedure lasts 20 minutes and includes two separations and two reunions from the caregiver, and each separation becomes increasingly stressful for the infant over the course of the procedure. Researchers were instructed to terminate separation episodes if infants were highly distressed and did not calm down after 30 seconds (for a more detailed description of the procedure, see Ainsworth et al., 1978). For the present study, at 12 and 15 months, either the mother or father came to a laboratory at the university with their infant to participate in the Strange Situation procedure to assess

the infant's attachment security with each parent. During this procedure, the infant is separated and then reunited with their parent. Based on the infant's response to the reunion with the parent, they were classified as forming one of four attachment relationships with each parent: secure (B), insecure-avoidant (A), insecure-resistant (C), or disorganized (D). Infants were rated as secure if they sought comfort from their parent following the distressing brief separation, which then successfully reduced their distress. Infants were rated as insecure-avoidant if they engaged in avoidant behaviors (e.g., turning away from a parent when the parent returned to the room) during the reunion with the parent. Infants were classified as insecure-resistant if they displayed a combination of proximity-seeking and anger toward the parent, such as running to the parent to seek comfort, and then hitting the parent. Lastly, infants were categorized as disorganized if they illustrated disoriented behavior, for example, entering trance-like states (e.g., freezing), fearful apprehension, or other inexplicable behavior in the presence of their caregiver (Main & Solomon, 1990).

There is substantial evidence that supports the reliability and validity of the Strange Situation. Ainsworth et al. (1978) found evidence for high levels of inter-rater reliability in their study. Test-retest reliability was found by Main, Kaplan, and Cassidy (1985) who tested babies at 18 months and again at 6 years of age. They found that all babies who were rated as secure were still secure at follow up and 75% of the avoidant babies were also still rated as avoidant. In addition, Bick, Dozier, and Perkins (2012) found convergent validity between young children's Strange Situation classifications with ratings of children's security, avoidance, and delight with their parents during

natural reunion episodes in a child care setting. Lastly, Sroufe (1983) found support for predictive validity, specifically that infants who were rated as secure were more likely than insecure infants to be rated as being more popular, having higher self-esteem, and being more likely to be social leaders in early childhood.

In the present study, four researchers coded each infant's attachment classification with their mother and father. All coders were reliable on the standard set of tapes provided by Alan Sroufe and Elizabeth Carlson. All videotapes were coded at least two times. The trainers, Mary Main and Elizabeth Carlson, assisted by reducing differences on the disorganized attachment status for 25 difficult cases. The inter-rater reliability on the 4-way classification (A, B, C, D categories) was $k = .74$. Similar to the study conducted by Umemura, Jacobvitz, Messina, and Hazen (2013), the present study will dichotomize the four categories of attachment into a two-way classification, secure vs. insecure, in the analysis since a primary question of this study is whether competitive coparenting behaviors predict insecure attachment (but not different types of insecure categories).

Coparenting Behaviors

Triadic interactions were videotaped and then coded for coparenting behaviors using an adaptation of the Coparenting and Family Rating Scales (CFRS; McHale, Kuersten-Hogan, Lauretti, & Rasmussen, 2000; Christopher, Umemura, Mann, Jacobvitz, & Hazen, 2015). The scales assessed both cooperative and competitive coparenting, as well as the affective tone and presence of conflict between parents and each parent's support of their spouse. The coding system is a global system in which coders rate

participant's behaviors and affective states as either present or absent for each minute of interaction. Scores are then averaged across the entirety of the interaction for each of the behaviors. The concurrent, predictive, and discriminant validity and the test-retest reliability of the CFRS have been well established by McHale and colleagues (e.g., McHale, 2007; McHale et al., 2001).

The present study utilized only the 5-point competitive coparenting scale. Competitive coparenting was assessed at 24 months, in which children and their parents were observed in a 25-minute in-home observation of their triadic interactions. Parents were tasked with a card sorting activity while concurrently working to prepare a snack and change their child's clothes. This task was designed to examine coparenting interactions that forced parents to work on an adult task while simultaneously caring for their child. Parents had 25 minutes to complete the tasks in any order they choose. The time constraint was intended to put mild pressure on the parents. If parents completed the tasks early, they were asked to engage their child in a challenging peg-sorting task that required parent involvement for the child to successfully complete the task. Competitive coparenting was rated on the degree to which parents tried to undermine or contradict each other, to jockey for attention or favoritism from the child, or to put the child in the middle of their disagreements during triadic interaction. Couples who displayed excessive levels of these behaviors with no indication of self-awareness earned a score of 5, whereas couples who exhibited the absence of competition or undermining behaviors earned a score of 1. In addition, if coparenting was nonexistent, for example, if one parent made all the parenting decisions, then a score of 1 was given. Two coders were

trained separately and were blind to all other data. If scores differed by more than one point between the coders, the coding team met to decide on the final ratings for those scores. For the existing dataset, the intraclass correlation between the two coders was r=.81 as reported by Murphy et al. (2017). Mean scores of the two coders were used for analyses.

Child Internalizing Symptoms

At 7 years of age, parents rated symptoms of their children's emotional and behavioral problems. The Parent Report Form (PRF) of The Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1990) was used. The CBCL is a standardized measure that consists of 116 items with response options ranging from 0 = *not true*, 1 = *somewhat true*, or 2 = *very true*. The CBCL provides an index of the child's internalizing (e.g., anxious, depressed) and externalizing (e.g., aggressive, noncompliant) behavior problems and has established validity and reliability (e.g., Achenbach & Edelbrock, 1990; Moss, Bureau, et al., 2004). High inter-interviewer and test-retest reliabilities (with intraclass correlations in the .90s) have been well established for this instrument (Achenbach, 1991), and construct validity has been supported by thousands of studies using this scale. For the present study, only the internalizing subscale was used. Using the same dataset, Jacobvitz, Hazen, Curran, & Hitchens (2004) reported that the CBCL completed by mothers had Cronbach's alpha of .55 for Affective Disorders, .69 for Anxiety Disorders, .96 for Somatic Complaints, and .70 for ADHD. In addition, they found the test-retest reliability score to be $r = .89$ for the mean of the problem scales. Good interparent

agreement was indicated by mean *r*s for the problem scales ranging from .65 to .75. For the present study, only the Affective Disorders scale will be used.

Parental Depression

At the 24-month and 7-year visits, mothers completed the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item self-report questionnaire that asks participants to indicate how frequently they have dealt with the feeling described in each statement during the past week with four response choices: 0 ("Rarely or none of the time"), 1 ("Some or a little of the time"), 2 ("Occasionally or a moderate amount of time"), and 3 ("Most or all of the time"). The summed score for all of the items represents the general depressive symptomatology experienced by the respondent throughout the past week. The CES-D is most commonly used for assessing general depressive symptoms in non-clinical samples, including in the US (e.g., Culp, Clyman, & Culp,1995; Harry & Crea, 2018), Asia (e.g., Iwata et al., 2019; Mackinnon, McCallum, Andrews, & Anderson,1998; Umegaki & Todo, 2017), and Europe (e.g., Fuhrer & Rouillon, 1989; Courtin, Knapp, Grundy, & Avendano, 2015), and is among the most frequently used and well-validated self-report measures of depressive symptoms (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995). The CES-D has been shown to be reliable for assessing depressive symptoms, with Cronbach's alphas coefficients ranging from .85 to .90 across studies (Radloff, 1977). Using the same dataset, Jacobvitz, Hazen, Curran, & Hitchens (2004) reported Cronbach's alphas for the CES-D at 24 months and 7 years as .82 and .90, respectively.

Data Analyses

Descriptive statistics, including means, standard deviations, minimums, maximums, and frequencies, will be calculated for all measures and composite variables. Figure 1 depicts the proposed paths between the variables of interest. Path analyses using structural equation modeling (SEM) using Mplus 6.0 will be utilized to test the four hypotheses and examine the developmental trajectories that lead from parent depression before each child is born to child depression at 7 years (see Figure 1). Missing data will be accounted for through full information maximum likelihood (FIML) estimation (Allison, 2003), which enables the inclusion of all data in the analyses via estimation of variances. Bootstrapping methods will also be used to reflect the true distributions of the variables assessed, with 2000 samples drawn. Given that each of the goodness-of-fit indices operates on different assumptions, it is suggested that several indices of overall fit be included to convey a consistent evaluation (Hoyle & Panter, 1995), including: (a) the chi-square, which accounts for the sizes of the correlations in the model and is a good measure of fit for samples less than 200 (Kenny, 2014); (b) the CFI, which is an incremental measure of fit that accounts for the number of parameters estimated in the model (Bentler, 1990); (c) the TLI, which is an incremental measure of fit that accounts for model complexity; and (d) the RMSEA, which is an absolute measure of fit that accounts for complexity, sample size, and degrees of freedom (Kenny, 2014). Cutoffs that indicate that a model is fitting adequately are a nonsignificant chi-square (for sample sizes between 75-200; Kenny, 2014)), a CFI and TLI > .90 (Marsh, Hau, & Wen, 2004), and RMSEA values less than .05 are generally accepted as indicators of good model fit;

values between .05 and .08 are often considered of adequate model fit (Marsh et al., 2004); and those greater than .10 indicate poor fit (Browne & Cudeck, 1993).

Chapter 4

Discussion

Summary

The proposed study seeks to add to the literature surrounding the influence of family-level processes, particularly competitive coparenting, on individual-level outcomes, chiefly attachment security, and child internalizing problems. Understanding the relationship among these variables can provide researchers and clinicians a clearer understanding of the dynamics that put children at risk for developing adverse psychological and behavioral outcomes, and this can help inform intervention. Furthermore, by understanding whether parental depression influences competitive coparenting, clinicians can identify at-risk families and target them for preventative and early intervention. It is expected that parental depression will increase competitive coparenting, which, in turn, is expected to be associated with child insecure attachment and later internalizing problems. If these hypotheses hold, then the present study will allow professionals to have a clearer understanding of variables associated with child insecure attachment and internalizing problems.

Limitations

The present study has a number of limitations that should be noted. The relatively small sample size and lack of diversity hinder the generalizability of the study. The small sample size limits the power of the study and the focus on young children prevents us from understanding if competitive coparenting processes operate differently depending

on the child's age. For example, in families with older children fathers tend to be more engaged in caring for their child and making parenting decisions, and the children themselves are more likely to influence their parents' coparenting dynamics (Murphy, 2017). The results from this study may not generalize to a wider range of social classes and ethnic variations, and we were, in turn, unable to examine race/ethnic differences. In addition, they may not generalize to variations in family structure, such as same-sex couples or non-nuclear families. The lack of repeated measures prevented us from assessing attachment security, and competitive coparenting at multiple time points, which may have influenced results. The triadic interaction was of limited duration and may not have fully captured dimensions of dyadic and triadic family processes that may have otherwise occurred. Therefore, triadic interactions should be examined in a wider variety of contexts, such as family outings outside of the home setting. Finally, variables not considered in this study, such as child temperament and marital quality, could influence coparenting behaviors.

Implications and Future Research

Results from this study could have important implications for future research and clinical practice. Because children are vulnerable to developing depression as young as four years old (Gaffrey, Barch, Singer, Shenoy, & Luby, 2013), it is important to understand family-level processes that influence child outcomes in order to develop well-tailored interventions.

Significant results may be useful to clinicians who work with at-risk families and parents who are at heightened risk for engaging in competitive coparenting. In families

with parents at risk for depression, including postpartum depression, a clinician may offer therapeutic support to help them manage their depressive symptoms to mitigate the likelihood that their depression will increase competitive coparenting behaviors. Given competitive coparenting is related to triangulation in families when their children are toddlers, it is important that clinicians provide early intervention to parents to prevent them from engaging in competitive coparenting. For instance, if a clinician observes a parent undermining the other, intervention may involve encouraging both parents to work more in tandem. This will become especially important as the infant enters toddlerhood where they begin to develop higher cognitive abilities that allow them to process their parents' interactions.

Intervention at the family-level, particularly coparenting, is important in fostering favorable child outcomes. Competitive coparenting is known to be related to child externalizing problems and internalizing problems at age 7 according to teacher reports (Murphy, Jacobvitz, & Hazen 2016; Umemura et al., 2015). Schoolteachers who observe children with externalizing and internalizing problems may discuss with parents ideas about coparenting behaviors to determine whether these might be impacting their child's psychological outcomes. Past research suggests that parents who agree with one another on a particular parenting style is a stronger predictor for positive child outcomes than marital quality (Abidin, 1992). Parent educators and family therapists may need to bolster the coparenting alliance by helping parents identify shared parenting goals, and this ameliorated alliance can promote positive child outcomes.

Future research should continue to explore family-level processes and their effect on child outcomes. In order to effectively assess child outcomes, it is important to gather data from both parents, especially when examining internalizing disorders. Past research suggests that mothers and fathers have stronger correspondence when evaluating externalizing problems, but significantly lower correspondence when evaluating internalizing problems (Schroeder et al., 2010). In addition, when evaluating depressive symptoms, parents of female children show greater correspondence than parents of male children, and future research should examine how these gender differences influence parental responses to their children. The role of gender in coparenting dynamics can be further elucidated by examining parental roles among same-sex couples, a group that is given less attention in clinical research.

Future research should also examine evolving parental contributions to coparenting as their children transition from infancy to toddlerhood and so forth. As children grow older, they begin to exert a stronger influence on their parents. It may be a vicious cycle such that parents who engage in competitive coparenting may produce children with greater emotional and behavioral difficulties, and these difficulties may exacerbate parents' competitive coparenting behaviors. By assessing competitive coparenting repeatedly, more can be learned about the association between coparenting and children's functioning, that is, the extent to which changes in levels of competitive coparenting correspond to child outcomes.

Appendix

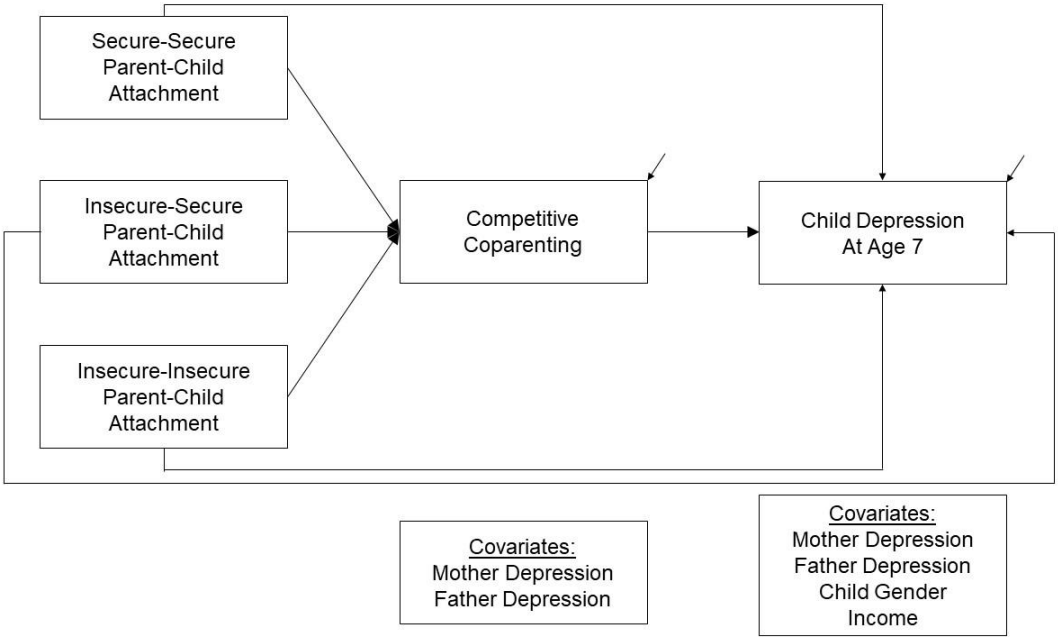

Figure 1. Illustrative Model of Relationships Among Infant Attachment, Competitive Coparenting, Child Depression, and Parental Depression.

References

Abidin, R. (1992). The Determinants of Parenting Behavior. *Journal of Clinical Child Psychology*, *21*(4), 407–412. https://doi.org/10.1207/s15374424jccp2104_12

Ainsworth, M. D. S., & Bell, S. M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development, 41*, 49-67

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Oxford: Lawrence Erlbaum.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.

Baptista, Makilim Nunes, Borges, Lisandra, & Serpa, Alexandre Luiz de Oliveira. (2017). Gender and Age-related Differences in Depressive Symptoms among Brazilian Children and Adolescents. *Paidéia (Ribeirão Preto)*, *27*(68), 290-297. https://dx.doi.org/10.1590/1982-43272768201706

Bick, J., Dozier, M., & Perkins, E. (2012). Convergence between attachment classifications and natural reunion behavior among children and parents in a child care setting. *Attachment & human development*, *14*(1), 1–10. doi:10.1080/14616734.2012.636645

Bierut, L. J., Heath, A. C., Bucholz, K. K., Dinwiddie, S. H., Madden, P. A. F., Statham, D. J., … Martin, N. G. (1999). Major depressive disorder in a community-based twin sample: Are there different genetic and environmental contributions for men

and women? *JAMA Psychiatry*, 56(6), 557–563. doi:101001/pubsArchGenPsychiatry-ISSN-0003-990x-56- 6-yoa8229

Bowlby, J. (1969). Attachment and Loss: Volume 1, Attachment. Harmondsworth: Penguin.

Bowlby, J. (1973). Attachment and Loss: Volume 2, Separation. New York: Basic Books.

Bowlby, J. (1980). *Loss: Sadness & depression. Attachment and loss (vol. 3); (International psycho-analytical library no.109)*. London: Hogarth Press.

Buehler, C., Anthony, C., Krishnakumar, A., Stone, G., Gerard, J., & Pemberton, S. (1997). Interparental conflict and youth problem behaviors: a meta-analysis. *Journal of Child and Family Studies*, *6*(2), 233–247.

Burt, S. A. (2009). Rethinking environmental contributions to child and adolescent psychopathology: A meta-analysis of shared environmental influences. *Psychological Bulletin*, 135(4), 608–637. doi:10.1037/a0015702

Burt, K. B., & Roisman, G. I. (2010). Competence and psychopathology: Cascade effects in the NICHD Study of Early Child Care and Youth Development. *Development and Psychopathology*, 22, 557–567.

Brenning, K., Soenens, B., Braet, C., & Bal, S. (2012). The Role of Parenting and Mother-Adolescent Attachment in the Intergenerational Similarity of Internalizing Symptoms. *Journal of Youth and Adolescence*, *41*(6), 802–816. https://doi.org/10.1007/s10964-011- 9740-9

Brenning, K., Soenens, B., Braet, C., & Bosmans, G. (2011). The role of depressogenic personality and attachment in the intergenerational similarity of depressive

symptoms: a study with early adolescents and their mothers. *Personality and Social Psychology Bulletin*, *37*(2), 284–297. https://doi.org/10.1177/0146167210393533

Caldera, Y. M., & Lindsey, E. W. (2006). Coparenting, mother-infant interaction, and infant- parent attachment relationships in two-parent families. *Journal of Family Psychology*, *20*(2), 275–283. https://doi-org.ezproxy.lib.utexas.edu/10.1037/0893-3200.20.2.275

Christopher, C., Umemura, T., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Marital quality over the transition to parenthood as a predictor of coparenting. *Journal of Child and Family Studies*, *24*(12), 3636–3651. https://doi-org.ezproxy.lib.utexas.edu/10.1007/s10826-015-0172-0

Chronis-Tuscano, A., Molina, B. S. G., Pelham, W. E., Applegate, B., Dahlke, A., Overmyer, M., & Lahey, B. B. (2010). Very early predictors of adolescent depression and suicide attempts in children with attention-deficit/hyperactivity disorder. *Archives of General Psychiatry*, *67*(10), 1044–1051. https://doiorg.ezproxy.lib.utexas.edu/10.1001/archgenpsychiatry.2010.127

Cohen, J. R., Andrews, A. R., Davis, M. M., & Rudolph, K. D. (2018). Anxiety and depression during childhood and adolescence: Testing theoretical models of continuity and discontinuity. *Journal of Abnormal Child Psychology*, *46*(6), 1295–1308. https://doi-org.ezproxy.lib.utexas.edu/10.1007/s10802-017-0370-x

Constantine, M. (2006). Perceived family conflict, parental attachment, and depression in African American female adolescents. *Cultural Diversity & Ethnic Minority Psychology*, *12*(4), 697–709. https://doi.org/10.1037/1099-9809.12.4.697

Copeland, W. E., Goldston, D. B., & Costello, E. J. (2017). Adult associations of childhood suicidal thoughts and behaviors: A prospective, longitudinal analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, *56*(11), 958–965. https://doi-org.ezproxy.lib.utexas.edu/10.1016/j.jaac.2017.08.015

Courtin, E., Knapp, M., Grundy, E., & Avendano, P. M. (2015). Are different measures of depressive symptoms in old age comparable? An analysis of the CES-D and Euro-D scales in 13 countries. *International Journal of Methods in Psychiatric Research*, *24*(4), 287–304. https://doiorg.ezproxy.lib.utexas.edu/10.1002/mpr.1489

Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). Applications of developmental psychopathology: Parental depression, families, and children's development. In E. M. Cummings, P. T. Davies, & S. B. Campbell (Eds.), *Developmental psychopathology and family process: Theory, research, and clinical implications* (pp. 299–340). New York: Guilford Press.

Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. *Psychological Bulletin*, *92*(2), 310–330.

Ereky-Stevens, K., Funder, A., Katschnig, T., Malmberg, L.-E., & Datler, W. (2018). Relationship building between toddlers and new caregivers in out-of-home childcare: Attachment security and caregiver sensitivity. *Early Childhood*

Research Quarterly, *42*, 270–279. https://doiorg.ezproxy.lib.utexas.edu/10.1016/j.ecresq.2017.10.007

Essau, C. (2008). Handbook of Depression in Children and Adolescents. Edited by J. R. Z. Abela and B. L. Hankin. (Pp. 529; $65.00; ISBN 1-59385-582-6.) Guilford Publications: New York. 2007. *Psychological Medicine, 38*(12), 1816-1817. doi:10.1017/S0033291708004480

Feeney, J. A. (1996). Attachment, caregiving, and marital satisfaction. *Personal Relationships*, *3*(4), 401–416. https://doiorg.ezproxy.lib.utexas.edu/10.1111/j.1475-6811.1996.tb00124.x

Fivaz-Depeursinge, E., & Favez, N. (2006). Exploring Triangulation in Infancy: Two Contrasted Cases. *Family Process*, *45*(1), 3–18. https://doi.org/10.1111/j.1545-5300.2006.00077.x

Fuhrer, R., & Rouillon, F. (1989). La version francaise de l'echelleCES-D (Center for Epidemiologic Studies-Depression Scale). Description et traduction de l'echelle d'autoevaluation[The French version of the CES-D (Center for Epidemiologic Studies-Depression Scale)].*European Psychiatry*, 4, 163–166.

Guffanti, Guia & J. Gameroff, Marc & Warner, Virginia & Talati, Ardesheer & Glatt, Charles & Wickramaratne, Priya & Weissman, Myrna. (2016). Heritability of Major Depressive and Comorbid Anxiety Disorders in Multi-Generational Families at High Risk for Depression. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*. 171. 10.1002/ajmg.b.32477.

Harry, M. L., & Crea, T. M. (2018). Examining the measurement invariance of a modified CES-D for American Indian and non-Hispanic White adolescents and young adults. *Psychological Assessment*, *30*(8), 1107–1120. https://doi-org.ezproxy.lib.utexas.edu/10.1037/pas0000553.supp

Iwata, N., Tsutsumi, A., Wakita, T., Kumagai, R., Noguchi, H., & Watanabe, N. (2019). The effect of alternative scoring procedures on the measurement properties of a self-administered depression scale: An IRT investigation on the CES-D scale. *European Journal of Psychological Assessment*, *35*(1), 55–62. https://doi-org.ezproxy.lib.utexas.edu/10.1027/1015-5759/a000371

Kashani, J., Holcomb,W., & Orvaschel, S. (1986). Depression and depressive symptoms in preschool children from the general population. *American Journal of Psychiatry, 143*, *Psychotherapy of Depression.* New York: Basic Books.

Keenan, K., Hipwell, A., Feng, X., Babinski, D., Hinze, A., Rischall, M., & Henneberger, A. (2008). Subthreshold symptoms of depression in preadolescent girls are stable and predictive of depressive disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *47*(12), 1433–1442. doi:10.1097/CHI.0b013e3181886eab

Kendler, K. S., Gatz, M., Gardner, C. O., & Pedersen, N. L. (2006). A Swedish national twin study of lifetime major depression. *The American Journal of Psychiatry*, 163(1), 109–114. doi:10.1176/appi.ajp.163.1.109

Kenny, D. A. (2011). Measuring Model fit. Retrieved from http://davidakenny.net/cm/fit.htm

Mackinnon, A., McCallum, J., Andrews, G., & Anderson, I. (1998).The Center for Epidemiological Studies Depression Scale in older community samples in Indonesia, North Korea, Myanmar, Sri Lanka, and Thailand. *Journal of Gerontology: Psychological Sciences,* 53B, 343–352.

Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M.T. Greenberg, D. Cicchetti & E.M. Cummings (Eds.), *Attachment in the Preschool Years* (pp. 121–160). Chicago, University of Chicago Press.

Mash, E. J., & Barkley, R. A. (Eds.). (2014). Child psychopathology (3rd ed.). New York, NY, US: Guilford Press.

Lim, J., Wood, B. L., & Miller, B. D. (2008). Maternal depression and parenting in relation to child internalizing symptoms and asthma disease activity. *Journal of Family Psychology*, *22*(2), 264–273. https://doiorg.ezproxy.lib.utexas.edu/10.1037/0893-3200.22.2.264

McHale, J. P., Kuersten-Hogan, R., & Lauretti, A. (2001). Evaluating coparenting and family-level dynamics during infancy and early childhood: The Coparenting and Family Rating System. In P. K. Kerig & K. M. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research.* (pp. 151–170). Mahwah, NJ: Lawrence Erlbaum Associates Publishers. Retrieved from http://search.ebscohost.com.ezproxy.lib.utexas.edu/login.aspx?direct=true&db=psyh&A N=2000-05410-009&site=ehost-live

McHale, J. P. (2007). When infants grow up in multi-person relationship systems. *Infant Mental Health Journal*, 28, 370–392. https://doi.org/10.1002/ imhj.20142

Merrell, K. (2001). *Helping students overcome depression and anxiety: A practical guide.* New York: The Guilford Press.

Murphy, S. E., Gallegos, M. I., Jacobvitz, D. B., & Hazen, N. L. (2017). Coparenting dynamics: Mothers' and fathers' differential support and involvement. *Personal Relationships*, *24*(4), 917–932. https://doi-org.ezproxy.lib.utexas.edu/10.1111/pere.12221

National Institute of Mental Health. (2016). Major Depression. Retrieved from https://www.nimh.nih.gov/health/statistics/major-depression.shtml

Nilsen W, Gustavson K, Roysamb E, Kjeldsen A, Karevold E (2013). Pathways from Maternal Distress and Child Problem Behavior to Adolescent Depressive Symptoms: A Prospective Examination from Early Childhood to Adolescence. *Journal of Developmental Behavioral Pediatrics*; 34:5:30313. *https://doi.org/10.1097/DBP.0b013e318293ab05*

Ruderman, M. A., Stifel, S. W., O'Malley, M., & Jimerson, S. R. (2013). The school psychologist's primer on childhood depression: a review of research regarding epidemiology, etiology, assessment, and treatment. *Contemporary School Psychology: Formerly" The California School Psychologist"*, *17*(1), 35-49.

Pudasainee-Kapri, S., & Razza, R. A. (2015). Associations among supportive coparenting, father engagement and attachment: The role of race/ethnicity.

Journal of Child and Family Studies, 24(12), 3793–3804. https://doi-org.ezproxy.lib.utexas.edu/10.1007/s10826-015-0187-6

Ryan, N.D., Puig-Antich, J., Ambrosini, P., Rabinovich, H., Robinson, D., Nelson, B., Iyengar, S., & Twomey, J.(1987). The clinical picture of major depression in children and adolescents. *Archives of General Psychiatry, 44*, 854-861.

Schroeder, J., Hood, M., & Hughes, H. (2010). Inter-Parent Agreement on the Syndrome Scales of the Child Behavior Checklist (CBCL): Correspondence and Discrepancies. *Journal of Child and Family Studies, 19*(5), 646–653. https://doi.org/10.1007/s10826-010-9352-0

Sloan, D. M. E., & Kornstein, S. G. (2003). Gender differences in depression and response to antidepressant treatment. *Psychiatric Clinics of North America, 26*(3), 581-594. doi:10.1016/S0193-953X(03)00044-3

Sroufe, L. A. (2005). The Development of the Person: The Minnesota Study of Risk and Adaptation From Birth to Adulthood. New York: The Guilford Press. Retrieved from http://search.ebscohost.com.ezproxy.lib.utexas.edu/login.aspx?direct=true&db=nlebk&AN=219727&site=ehost-live

Stover, C. S., Zhou, Y., Kiselica, A., Leve, L. D., Neiderhiser, J. M., Shaw, D. S., … Reiss, D. (2016). Marital hostility, hostile parenting, and child aggression: Associations from toddlerhood to school age. *Journal of the American Academy of Child & Adolescent Psychiatry, 55*(3), 235–242. https://doi-org.ezproxy.lib.utexas.edu/10.1016/j.jaac.2015.12.008

Spence, S. H., Najman, J. M., Bor, W., O'Callaghan, M., & Williams, G. M. (2002). Maternal anxiety and depression, poverty and marital relationship factors during early childhood as predictors of anxiety and depressive symptoms in adolescence. *Journal of Child Psychology and Psychiatry, 43*(4), 457–470.

Sullivan PF, Neale MC, Kendler KS. 2000. Genetic epidemiology of major depression: Review and meta-analysis. *American Journal of Psychiatry* 157*(*10*):*1552–1562.

Thapar, A., Collishaw, S., Pine, D. S., & Thapar, A. K. (2012). Depression in adolescence. *The Lancet, 379*(9820), 1056-1057. doi:10.1016/S0140-6736(11)60871-4

Umegaki, Y., & Todo, N. (2017). Psychometric properties of the Japanese CES–D, SDS, and PHQ–9 depression scales in university students. *Psychological Assessment, 29*(3), 354–359. https://doi-org.ezproxy.lib.utexas.edu/10.1037/pas0000351

Vannest, K.J., Reynolds, C.R., & Kamphaus, R.W. (2008). Intervention guide for behavioral and emotional issues. Bloomington, MN: Pearson.

Ward, S. L. (1998). Students at-risk for early adolescent depression: A retrospective longitudinal investigation using school-based predictors (Order No. 9913668). Available from ProQuest Dissertations & Theses Global. (304438188).

Weeks, M., Ploubidis, G. B., Cairney, J., Wild, T. C., Naicker, K., & Colman, I. (2016). Developmental pathways linking childhood and adolescent internalizing, externalizing, academic competence, and adolescent depression. *Journal of Adolescence, 51*, 30-40. doi:10.1016/j.adolescence.2016.05.009

Young, E., & Korszun, A. (2010). Sex, trauma, stress hormones and depression. *Molecular Psychiatry*, *15*(1), 23-28. doi:10.1038/mp.2009.94